Rapa Nui Landscapes of Construction Project
(LOC3)

Excavations at Puna Pau 2009

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Rapa Nui Landscapes of Construction

The Rapa Nui Landscapes of Construction Project (LOC) is funded by a grant from the Arts and Humanities Research Council in the UK. Based at the Institute of Archaeology, University College London, the project is directed by Sue Hamilton of UCL (principal investigator) and Colin Richards of the University of Manchester (co-investigator), in collaboration with Kate Welham of Bournemouth University (co-investigator). The University of the Highlands and Islands (Project Partner) is represented by Jane Downes.

On the Island, LOC works with Rapanui elders and students and in close cooperation with the *Corporacion National Forestal* (*CONAF*), Rapa Nui, and the *Museo Antropológico P. Sebastián Englert* (*MAPSE*).

The main aim of the project is to investigate the construction activities associated with the Island's famous prehistoric statues and architecture as an integrated whole. These construction activities, which include quarrying, moving and setting up of the statues are considered in terms of Island-wide resources, social organisation and ideology.

The Project is not just concerned with reconstructing the past of the island, but is also contributing to the 'living archaeology' of the present-day community, for whom it is an integral part of their identity and their understanding and use of the island. LOC is working with the Rapanui community to provide training and help in recording, investigating and conserving their remarkable archaeological past. Fieldwork between 2008 and 2013 was undertaken under a permit issued by the *Consejo de Monumentos Nacionales*, Chile (ORN No 1699 CARTA 720 DEL 31 del 01.2008).

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by Jane Downes & Colin Richards

1. Introduction

Guided by the geophysical results of 2008 (LOC 2008), a trench was opened to the south of Katherine Routledge's *Pukao* XIV on the outer northern slope of the Puna Pau crater. Given that this intervention represented the first systematic excavations at Puna Pau, the aims of the trench were to:

1. ascertain the presence/ absence of a road leading to the inner crater.
2. obtain dating material for such a road if present.
3. determine whether the large area of low resistance which appeared to drop off to the bedrock and run beneath the gully adjacent to the modern path was quarry debris or a natural wash.
4. provide an explanation for the apparent counter slope (against surface topography) angle of rest of *Pukao* XIV.
5. determine the context of the apparently abandoned *pukao*.
6. evaluate the presence of sub-ground surface petroglyphs on the *pukao*.
7. recover artefactual evidence of tool types used in the shaping and quarrying of *pukao*.
8. recover environmental samples (e.g. pollen) to enable a degree of botanical reconstruction.

The site code is 27PP09. In future excavation reports this year's excavation trench will be known as Puna Pau, Trench 1.

2. 2009 Participants/ Authorities

In 2009 the Rapa Nui Landscapes of Construction Project was directed by Dr Sue Hamilton of the Institute of Archaeology, University College London, Susana Nahoe of the *Corporacion National Forestal*, Rapa Nui, Dr Colin Richards of the University of Manchester and Francisco Torres H. of the *Museo Antropológico P. Sebastián Englert*). The 2009 season was funded by the Bank of Santander and University College London. Excavations in 2009 were supervised by Dr Jane Downes of the University of the Highlands and Islands.

3. Description

The trench, as initially opened, consisted of two rectangular cuttings meeting at their apex in order to obtain an E-W section downslope into the gully adjacent to the *pukao* [007] (*Figure 1*). The eastern cutting measured 3 x 2 m and the western 4 x 2 m (subsequently expanded to the south by 2 m); this

encompassed the *pukao* on its southern side. Consequently, the excavation will be discussed in terms of a single trench.

The removal of the turf and topsoil [001], revealed a deposit of red-grey silt incorporating large grey scoria lumps [002], which covered the eastern area of the trench. A corresponding layer [004] was visible in the western area of the trench but this was dominated by smaller pieces of red scoria. Layer [002], gave way to a compact red, silty-clay wash, incorporating occasional large grey lumps of grey scoria [003], which formed the upper layer of wash creating the downslope running E-W across the trench. In the SE area of the trench a tree hollow [005], filled with a loose orange-brown mixed soil [006], was visible cutting through layer [003]. It soon became apparent that the surface topography, particularly the way the ground sloped

Figure 1.
The excavation trenches as initially set out

down towards a gully (and *pukao*) adjacent to the modern pathway, was created by a series of layers of hill-wash flowing down into a natural crevice running down the outer slope of the volcano. Although naturally deposited, layer [003] did seal distinct layers and lenses of red scoria debris, e.g. [010] & [027], which themselves were separated on the downslope by a thin layer of further hill-wash [026]. These deposits overlay a very thick layer (<1.05 m) of fairly homogenous grey-orange silty clay hill-wash [008], the excavation of which was halted in the eastern area of the trench at a depth of 1.05 m (where it continued down). Overall, the deposits recorded running downslope into the excavated trench from the east and southeast clearly represent episodes of erosion (hill-wash) sealing and punctuating layers of scoria debris which in turn relate to periods of *pukao* quarrying and/ or shaping activity occurring further upslope, near the crater rim. Even the 'wash' material itself revealed observable stratification as demonstrated by orange-red clay layer [017] overlying orange-grey clay layer [018], which

formed the basal deposits of the slumping clay wash as it extended into the western area of the trench, south of the *pukao*.

It may be expected that the basal 'wash' layer [008] would have a fairly regular form as it ran downslope. However, not only was this substantial silty clay layer [008] seen to respect the 'back' of the *pukao*, but a gap of *c*. 0.4–0.5 m, separated the near vertical scarp of the wash [008] and the rear face of the *pukao* (*Figure 2*). Judging from the sharp, almost vertical edge to layer [008], and the way it appeared to curve around the east and southeast of the *pukao*, it seems likely that some form of recess had been cut into the slope to accommodate the *pukao*. The gap or cavity had subsequently become infilled with basal grey clay [030], below a dark brown silty loam [013], forming a matrix for larger scoria blocks [014], above which lay the ubiquitous spread of loose red scoria chippings [010]. Significantly, this infilling had been completed, and a horizontal surface formed behind the *pukao*, by the time the later deposit of downslope wash [003] was laid down. In the northeast area of the trench, at the rear of the *pukao*, further root holes and disturbance [011] were visible at the interface between layers [003] and [010].

Figure 2.
Recessed layer [008] curving around southern area of the pukao. Scales 1 m

In the lower western area of the trench, overlying the diminishing wash layer [008] as it ran downslope, were differential strata of layers of red scoria fragments. Some were discrete to this area of the trench e.g. [004] & [012], while others ran across larger areas of the trench e.g. [010]. However, they all appeared to be generally slumping downhill from the south and southeast — again suggesting upslope scoria working. This is clearly illustrated by the sequential slumping of different layers of red scoria debris [028] and [010] onto the hard compact surface [015] as it runs downslope (S–N). Significantly, sandwiched between scoria layers [010] and [028] at a higher level was a hard 'lump' or segment of compressed silty clay with fine gravel [016]. This segment strongly resembled a truncated section of 'road curbing' an occurrence which will be discussed below.

The hard surface [015] ran in a N–S direction within the western confines of the trench, projecting *c*. 1.0–1.5 m in from the western baulk (*Figure 3*). The surface consisted of compressed fine silt and in profile it was slightly concave in having a raised lip or 'curb' along its eastern edge. This deposit was formed by compression and clearly represented the trampled surface of a road. Being c. 0.05 m in depth it had formed directly on a hard deposit of natural till or clay with small stones [029].

On its eastern side, the road and curbing had been subsequently cut by a deep pit [020], which extended into the natural (*Figure 4*). It was in this pit that the *pukao* had been positioned. The west and south sides of the pit [020] as revealed by excavation were not vertical but steeply angled and consequently the *pukao* was also set at an angle; this was probably due to its excessive size. Subsequent to the *pukao* being lodged within its confines, a fill of red scoria 'gravel' and silty soil [019] filled the extremities of the cavity. Also, cutting the road and natural till was an irregular ramp [022] running into pit [020], which sloped down in a NNE direction from the road.

Figure 3.
Road surface [015] running along western side of trench (note the remnant curb section [016]). Scale 1 m

Figure 4.
Cut [020] with in-situ fill [019] on west side of pukao *(note clarity of the raised road curb)*. Scale 20 cm

Figure 5.
Rubble infill [024] of ramp [022]. Scales 1 m and 20 cm

Figure 6.
View of ramp [022] from south. Scales 1 m

Once the *pukao* had been set within the pit [020], a fine silty clay [025], c. 0.03m in depth, had accumulated on the ramp cut [022]. The ramp was purposely filled and levelled by a deposit of large scoria blocks [024] within a soft and loose soil rich in small scoria fragments [023] (*Figure 5*). At a later time, the whole central area of the trench, surrounding the *pukao*, was covered by loose scoria chippings [010]. The mixed scoria and clay layer [003] then washed over this deposit, lapping around the *pukao*, and partially filling the recess. It was in this material, at a relatively high level, that the obsidian adze (SF 15) had been deposited adjacent to the *pukao* on its southern side. Broken stone *toki* (flaked stone working 'adzes') were present throughout all levels. The lack of complete examples or broken parts of a single tool suggests that much of this material accumulated with the scoria waste from higher workings.

4. Discussion

Overall, the excavations at Puna Pau were successful in meeting a number of the aims of the project design. This is initially discussed in terms of a sequence of events.

The road
Excavation revealed a partial segment of a prehistoric road [015] running N–S downslope from the crater and lying partially buried beneath the present day path. This seems to be the primary feature encountered within the excavated area. The route of the road seems to follow a gully, running adjacent to the path. From the results of excavation it is possible to calculate that the gradient of the prehistoric road was substantially less than that of the present path, which follows a similar route up the northern outer slope of the small volcano. This would seem to be a result of an increased depth of

quarry and shaping debris building up on the road as it approached the crater lip. Indeed, it is possible to see, through differential vegetation growth, the slumping of debris from quarry workings on the volcano lip to the east of the gully. As the excavation only revealed the eastern edge of the road, its width cannot be ascertained; however it is unlikely to exceed *c*. 5 m, due to the ground dropping sharply away to the west. Interestingly, the road displayed a marked concave profile with a lip or curb on its western edge (although this may be a product of heavy traffic including *pukao* movement). The surface of the road was extremely hard and composed of compacted silty clay. The concave profile of the road at Puna Pau is consistent with the results of Love's excavations along sections of the southern *moai* road where he also encountered a concave road profile (2001). A sample of charcoal for radiocarbon dating was obtained from context [010] directly above the road surface.

The pukao

At a later date a recess was cut into the slumping wash [008] to the east of the road and a pit [020] was dug with a ramp [022] leading in from the SW. The pit measured *c*. 2.6 m in width, and had angled sides, particularly on its western side. The *pukao* was then rolled downslope, along the ramp into the pit. The current angled point of rest of the *pukao* is a direct result of it being wedged higher on the angled profile of the western edge of the pit. Either the pit was dug to receive a smaller *pukao* or its size was unknown when the pit was dug. Alternatively, the position of rest may have been of little consequence and it was sufficient that a series of *pukao* were positioned along the line of the roadway. The fact that the road was cut by the pit may suggest that this deposition was late in the life of the quarry.

After the *pukao* was positioned at the roadside, the outer edge of the pit was filled [019] and the ramp was levelled with large scoria lumps [024] and several broken *toki* in a soil matrix [023]. The road may have continued in use, on the basis of the fragment of 'curbing' remaining at a higher level. Over time further material slumped into the recess and effectively buried the *pukao* to the level seen today; the recess also remains a visible declivity to the south of the *pukao*. That these roadside *pukao* maintained some form of special significance through time is demonstrated by the deposition of the obsidian adze (SF 15) in the later infill [003].

Petroglyphs

There are a number of *pukao* at Puna Pau that exhibit petroglyphs on their outer faces. Obviously, today they are only visible on the above ground surfaces. Excavation of *Pukao* XIV clearly demonstrated that the petroglyphs were restricted to the above ground surface and that they were therefore a much later addition.

5. Conclusion

Generalizing from the results of the excavation a number of points can be made. First, the recessed setting of *Pukao* XIV within a pit along the roadside was clearly a purposeful act of deposition. A number of other *pukao* running down the northern slope of Puna Pau also appear to be centred in small hollows. Because of their potential roadside locations, in conjunction with the *pukao* distribution, it is possible to suggest that the road continued

downslope and ran to the east — its extended position being marked by the position of *pukao* noted by Routledge (*Figure 7*).

Secondly, from the absence of any evidence of quarrying within the excavated area, it seems that the main areas of scoria exploitation were at the crater rim and inside the crater. Third, all petroglyphs appear to be added at a much later date.

Overall, the excavation at Puna Pau has answered a number of questions concerning the *pukao* running down the northern outer slope. The location of a '*ara pukao*' now allows a range of issues concerning direction and experiences of approach to be addressed. Equally, the monumentalization of this roadway immediately forges links between Puna Pau and the monumentality of the so-called 'in-transit' *moai* along the roads approaching Rano Raraku.

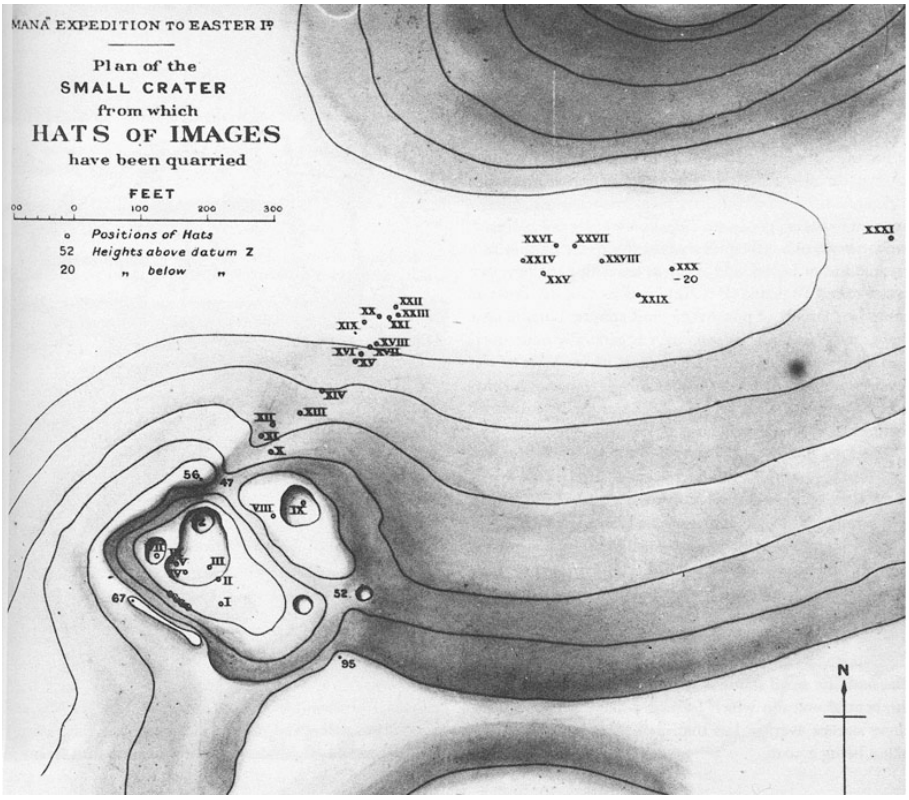

Figure 7.
Original survey of pukao at Puna Pau by the Routledge expedition. Pukao 24–31 have subsequently disappeared

Excavation team: Claudio Cristino, Jane Downes, Donald Kirkpatrick, Susana Nahoe, Bob Nunn, Mike Parker Pearson, Colin Richards & Francisco Torres H.
Finds analysis: Josh Pollard & Mike Seager Thomas
Photography: Jane Downes, Colin Richards & Adam Stanford (of Aerial-Cam)
Environmental sampling: Sue Hamilton
Survey: Kate Welham

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Appendix 1. Context List

01. Turf and topsoil.
02. Layer of fragmentary red scoria below [001].
03. Thick layer of fragmentary red scoria below [001].
04. Layer of fragmentary red scoria below [001] beneath modern path.
05. Tree hollow in S.E. corner of trench.
06. Orange-brown silty fill of tree hollow.
07. Pukao.
08. Thick deposit of wash running downslope beneath [002].
09. Same as [008].
10. Layer of red scoria — working debris beneath [008].
11. Thin layer of silty wash beneath [009] in N.E. corner of trench.
12. Layer of larger red scoria fragments beneath [004].
13. Layer of red scoria fragments, overlying [009] at base of slope, providing matrix for [014].
14. Grey scoria blocks within [013].
15. Compact layer of fine scoria and compressed soil beneath [010] — road surface.
16. Segment of raised kerbing above [010].
17. Layer of orange-red clayey wash extending from [008] in S. of trench.
18. Pale orange-grey silty layer — lower downslope wash forming base of [008].
19. Scoria fill of cut [020] around *pukao* (west side).
20. Sharp cut running around *pukao.*
21. Upper fill of elongated ramp [022].
22. Elongated cut/ramp of *pukao.*
23. Grey shillet fill (matrix) of cut [022].
24. Scoria blocks with [023].
25. Basal silty layer of [022].
26. Layer/ lens of clay wash between scoria gravel [010] & [027].
27. Scoria layer between wash [026] and [008].
28. Basal scoria layer beneath [010] over road surface [015].
29. Natural.
30. Grey-brown soft silty clay filling cut [20] at E. side of *pukao.*

Appendix 2. Drawing List

Drawing No	Type	description	Sheet No	Scale
1	plan	E trench plan showing [003]	1	1:20
2	plan	location of extension 1	2	1:20
3	plan	tree hollow in E of trench	3	1:20
4	section	N facing E-W trench section	4	1:10
5	plan	road position [015]	5	1:20
6	plan	details of feature [020]	6	1:20
7	section	N facing E-W in centre of trench	7	1:10
8	section	N facing E-W: S trench edge	8	1:10
9	section	E facing N-S: E trench edge	9	1:10
10	section	E facing section trough cut [020]	9	1:10
11	plan	features [020] & [007]	10	1:20
12	profile	S facing through road [015]	10	1:10
13	section	S facing through road [015]	10	1:10
14	section	continuation of drawing 8	8	1:10
15	section	S facing E-W: E of *pukao*	11	1:10
16	plan	Pre-excavation of cut [022] showing stones [024]	12	1:20
17	plan	trench location and *pukao*	13	1:20

Appendix 3. Photographic Register)

Frame No	Description	Direction of shot	Taken by	Date
72	Deturfing, general working shot	N	JD	22/01/2009
73	Deturfing, general working shot	N	JD	22/01/2009
74	TR01A, Trench view at 008 and section	S	JD	23/01/2009
75	TR01A, Trench view at 008 and section	S	JD	23/01/2009
76	TR01A, Trench view at 008 and section	W	JD	23/01/2009
77	TR01A, Trench view at 008 and section	E	JD	23/01/2009
78	TR01A, Trench view at 008 and section, feature 005 and context 006	E	JD	23/01/2009
79	Trench view at west end at context 004	S	JD	23/01/2009
80	Trench view at contexts 004/003	E	JD	23/01/2009
81	Trench view at contexts 004/003	E	JD	23/01/2009
82	General view at spit 2 at context 004	E	JD	23/01/2009
83	General view at spit 2 at context 004	E	JD	23/01/2009
84	General view at spit 2 at context 004, west end of trench	S	JD	23/01/2009
85	General view at spit 2 at context 004, west end of trench	S	JD	23/01/2009
86	Trench view from the west end after removal of context 003	E	JD	23/01/2009
87	Trench view from the west end after removal of context 003	E	JD	23/01/2009
88	Bob finding obsidian adze	N	DK	26/01/2009
89	Obsidian adze in Bob's hand	N	DK	26/01/2009
90	Obsidian adze in Bob's hand	N	DK	26/01/2009
91	Obsidian adze in ground in context 003	N	JD	26/01/2009
92	Obsidian adze in ground in context 003	N	JD	26/01/2009
93	Context 011 root hollow record shot	E	JD	26/01/2009
94	Context 011 root hollow record shot	E	JD	26/01/2009
105	Trench working shot	N	JD	28/01/2009
106	Trench working shot	N	JD	28/01/2009
107	Trench working shot	N	JD	28/01/2009
108	Trench working shot	W	JD	28/01/2009
109	Trench working shot	W	JD	28/01/2009
110	General view of Trench 1A/B	W	JD	28/01/2009
111	General view of Trench 1A/B	W	JD	28/01/2009
112	General view oblique of Trench 1A/B	S	JD	28/01/2009
113	South section of Trench 1B	S	JD	28/01/2009
114	East section of Trench 1B, and general view of Trench 1A/B	E	JD	28/01/2009
115	East section of Trench 1B, and general view of Trench 1A/B	E	JD	28/01/2009
116	Aerial shot of Trench 1A/B		JP	28/01/2009
117	Aerial shot of Trench 1A/B		JP	28/01/2009
118	Aerial shot of Trench 1A/B		JP	28/01/2009
10	Aerial shot of Trench 1A/B	E	JP	28/01/2009
11	Aerial shot of Trench 1A/B	E	JP	28/01/2009
12	Aerial shot of Trench 1A/B	E	JP	28/01/2009
13	Aerial shot of Trench 1A/B	E	JP	28/01/2009
14	Wide angle shot of Trench 1A/B	E	CR	28/01/2009
119	Detail of road at south facing section	N	JD	28/01/2009
120	Detail of road at south facing section	N	JD	28/01/2009

Frame No	Description	Direction of shot	Taken by	Date
121	Close up of obsidian small find 032 in-situ next to pukao	E	JD	28/01/2009
122	Close up of obsidian small find 032 in-situ next to pukao	E	JD	28/01/2009
123	Susannah Nahoe with find of obsidian adze in section, next to pukao	E	JD	28/01/2009
124	Obsidian flake, small find 033 in-situ, next to pukao	E	JD	28/01/2009
125	Obsidian flake, small find 033 in-situ, next to pukao	E	JD	28/01/2009
126	Road surface 015	N	JD	28/01/2009
127	Road surface 015	N	JD	28/01/2009
128	Trench 1B extension, west end	S	JD	28/01/2009
129	Trench 1B extension, west end	S	JD	28/01/2009
130	Trench 1B extension, west end	S	JD	28/01/2009
131	Crusty lump of 016, possibly part of road	E	JD	28/01/2009
15	Wide angle ladder shot at contexts 010/012	N	CR	30/01/2009
16	Wide angle ladder shot at contexts 010/012	N	CR	30/01/2009
17	Wide angle ladder shot at contexts 010/012	N	CR	30/01/2009
147	Ladder shot at contexts 010/102	N	JD	30/01/2009
148	Ladder shot at contexts 010/102	N	JD	30/01/2009
149	Ladder shot at contexts 010/102	N	JD	30/01/2009
150	Context 015, road surface at north end	E	JD	30/01/2009
151	Context 015, road surface at north end	E	JD	30/01/2009
18	Wide angle ladder shot at contexts 010/012	E	CR	30/01/2009
19	Wide angle ladder shot at contexts 010/012	E	CR	30/01/2009
20	Wide angle ladder shot at contexts 010/012	E	CR	30/01/2009
152	Ladder shot at contexts 010/102	E	JD	30/01/2009
153	Oblique shot of Trench 1	N	JD	30/01/2009
154	Trench, men speaking	W	JD	30/01/2009
155	Trench, men speaking	W	JD	30/01/2009
156	Trench, men speaking	W	JD	30/01/2009
286	Detail of sectioned 015	E	JD	02/02/2009
287	Detail of sectioned 015	S	JD	02/02/2009
295	Detail of context 015 and 019 partially removed	E	JD	03/02/2009
296	Detail of context 015 and 019 partially removed	E	JD	03/02/2009
297	Detail of context 015 and 019 partially removed	NE	JD	03/02/2009
298	East facing section of Trench 1	W	JD	03/02/2009
299	Pukao cut feature and road 015	E	JD	03/02/2009
300	West side pukao and cut feature 22	E	JD	03/02/2009
301	West side pukao and cut feature 22	E	JD	03/02/2009
302	South side of pukao and cut feature 22	W	JD	03/02/2009
303	South side of pukao and cut feature 22	W	JD	03/02/2009
304	East facing section of Trench 1	W	JD	03/02/2009
333	Cut 20 excavation showing stone fill 024	N	JD	04/02/2009
334	Cut 20 excavation showing stone fill 024	N	JD	04/02/2009

Frame No	Description	Direction of shot	Taken by	Date
335	Cut 20 excavation showing stone fill 024	W	JD	04/02/2009
338	Excavated Trench	NE	JD	05/02/2009
339	Excavated Trench	NE	JD	05/02/2009
340	Whole view, slightly elevated, excavated trench	NE	JD	05/02/2009
341	Whole view, slightly elevated, excavated trench	NE	JD	05/02/2009
342	Whole view, slightly elevated, excavated trench	NE	JD	05/02/2009
343	Excavated Trench	NW	JD	05/02/2009
361	South facing section on west side of pukao	N	DK	06/02/2009
362	South facing section on west side of pukao	N	DK	06/02/2009
363	South facing section on west side of pukao	N	JD	06/02/2009
364	South facing section on west side of pukao	N	JD	06/02/2009
387	Reinstatement complete	N	JD	07/02/2009
388	Reinstatement complete	N	JD	07/02/2009
389	Reinstatement complete	E	JD	07/02/2009
Camera Number: Nikon D7OS (except shots 10-20 Pentax K10)				

Appendix 4. Small Finds Register

Small Finds No	Context Number	Material	Date	Easting	Northing	Depth
1	3	Rano Kau basalt flaked stone toki	23/01/2009	102.80	104.70	0.25
2	3	hammer stone, basalt	23/01/2009	104.15	104.00	0.34
3	9	obsidian denticulate	26/01/2009	103.10	104.70	0.32
4	9	basalt flake	26/01/2009	103.55	104.20	0.32
5	10	basalt flake	26/01/2009	103.61	104.54	0.58
6	10	basalt flake	26/01/2009	103.52	104.42	0.54
7	10	basalt flake	26/01/2009	103.57	104.55	0.53
8	10	basalt flake	26/01/2009	103.48	104.91	0.45
9	10	basalt tool toki	26/01/2009	102.18	104.96	0.36
10	10	basalt flake	26/01/2009	102.24	104.31	0.48
11	10	basalt flake	26/01/2009	102.28	104.32	0.48
12	10	basalt flake	26/01/2009	102.26	104.33	0.48
13	10	basalt flake	26/01/2009	102.08	104.50	0.34
14	10	basalt flake	26/01/2009	103.13	104.69	0.58
15	3	obsidian adze	26/01/2009	101.49	104.96	0.32
16	10	charcoal (environmental sample, dating)	26/01/2009	100.54	104.34	0.52
17	10	flat bladed stone tool	26/01/2009	100.10	104.42	0.47
18	10	obsidian flake	26/01/2009	101.16	105.08	0.54
19	10	basalt mattock	26/01/2009	100.90	105.68	0.46
20	void					
21	13	basalt flake	26/01/2009	102.60	104.43	0.71
22	12	charcoal (environmental sample, dating)	26/01/2009	100.63	105.17	0.61
23	13	hematite	26/01/2009	102.30	104.90	0.65
24	12	basalt flake	26/01/2009	100.10	104.95	0.51
25	14	basalt tool	27/01/2009	103.20	104.20	0.69
26	3	basalt toki	27/01/2009	100.80	103.40	0.2
27	3	basalt block	27/01/2009	101.79	103.54	0.23
28	3	basalt flake tool	27/01/2009	102.27	103.13	0.55
29	3	basalt mattock	27/01/2009	101.35	103.69	0.43
30	10	basalt tool	27/01/2009	103.12	103.95	0.6
31	10	hematite	27/01/2009	100.47	103.21	0.63
32	3	obsidian flake	28/01/2009	103.18	104.39	0.15
33	3	obsidian flake	28/01/2009	103.22	104.16	0.25
34	3	hematite	28/01/2009	102.30	105.00	0.3
35	10	basalt toki	29/01/2009	101.97	102.15	0.38
36	10	obsidian flake (hydration dating)	30/01/2009	100.52	106.10	0.42
37	8	obsidian flake (hydration dating)	02/02/2009	103.65	103.52	0.62
38	8	basalt flaked tool	02/02/2009	103.01	103.41	0.68
39	8	basalt tool	02/02/2009	104.60	103.45	0.58
40	9	obsidian flake	02/02/2009	101.27	106.22	0.55
41	15	broken stone tool	02/02/2009	100.92	105.02	0.61
42	19	broken stone tool	03/02/2009	102.63	104.60	0.89
43	21	charcoal	03/02/2009	101.23	104.63	0.51

Small Finds No	Context Number	Material	Date	Easting	Northing	Depth
		(environmental sample, dating)				
44	19	toki flake	04/02/2009	102.22	104.56	0.86
45	13	toki piece	04/02/2009	102.45	104.03	1.06
46	23	charcoal (environmental sample, dating)	04/02/2009	102.37	105.09	0.94
47	25	broken beach pebble	04/02/2009	102.31	104.29	1.04

Appendix 5. Bulk Finds Register

Context Number	Easting	Northing	Flow lava	Obsidian	Miscellaneous	Spit	Comments
1	top soil	top soil	1			n/a	toki
1	top soil	top soil			1	n/a	
3	100	103	5	1	1	n/a	
3	100	104	25			n/a	
3	100	106	3			n/a	
3	101	102	5	3		n/a	
3	101	103		1		n/a	
3	101	105	2			n/a	
3	102	102	5	1		n/a	
3	102	103	1			n/a	
3	103	102	3			n/a	
3	103	103	5	2		n/a	toki
4	101	104		1		n/a	
4	101	104	3			1	
10	100	102	4			n/a	
10	100	103	3	2		n/a	
10	100	104	3			n/a	
10	100	104	4			n/a	
10	100	104	10			n/a	
10	100	105		2		n/a	
10	100	105	5			n/a	
10	100	106	44	4	2	n/a	lava
10	101	102	6	1	1	n/a	hammer stone
10	101	103	1	1		n/a	
10	101	103	12	1		n/a	split pebble
10	101	104	1	1		1	
10	101	104	3			2	
10	101	105		1		n/a	
10	102	102	4	1		n/a	toki
10	102	103	3	4	1	n/a	core
10	102	104	1			n/a	
10	102	104	14			n/a	
10	103	102	3			n/a	toki tip
10	103	103	7	2		n/a	
10	103	104	3	3		n/a	
12	100	104	2	1		n/a	
12	101	104	2	1		n/a	basalt lump
12	102	104	2	2		n/a	
13	100	103	12			n/a	
13	102	104	1			n/a	
13	102	104		1		n/a	
14	103	103	4			n/a	
16	101	104	1			n/a	
23	102	105		2		n/a	obsidian hydration samples
Totals			**213**	**39**	**6**		

Appendix 6. Preliminary assessment of selected struck obsidian

by Josh Pollard

Context	Flake	Core	Chip	Misc.	Retouched
001 T1Bx2	1				Abrupt retouch on one edge – blunting. Knife
001 Pukao extension	3		8		One with damaged edge — utilized. One a thinning flake, and one a very steep fractured trimming flake
003 SF32		Core tool (adze)			Expedient bi-facial retouch, largely at proximal end. Platform on left side (as looked at from ventral face). Thinned through abrupt retouch, perhaps to facilitate hafting, leaving right edge as blade, i.e. may be an adze
101/103			1		
100/103	1 "scraper"				Bifacially retouched. Small bifacial tool, on flake (proximal end and part of bulb remaining). Scraper-like with inverse retouch forming straight edge on bulb end. Micro-flaking and abrasion
003. SF32	1 adze				One flaked flake. Large flake segment (proximate and distal ends missing), cortical. From right side a series of large flakes removed from ventral face (inverse) using longitudinal fracture as platform. Edge damage on left side. Illustrate
003 SF15	1 adze				Fine adze. On large flake (cortex present on part of one side/ face). Blade formed by flake edge — finer micro flaking of this resulting from use. Triangular/ tranchet shape, butt formed by longitudinal flake fracture. On dorsal side bold flaking to body, then finer thinning flakes removed from ventral surface. Long edges deliberately abraded to facilitate hafting. Identified as Rano Kau obsidian by MST. Illustrate
104.2/ 103.2		1		1 flaked flake	
003	3 (one thinning)			2 flaked pieces	Irregular flake and small triangular point formed by fine abrupt retouch along both edges — piercer/ point.

Context	Flake	Core	Chip	Misc.	Retouched
					Illustrate
103/103	2				
102/102	1				
003	2 (one very large)			1 irregularly fractured piece	One small flake with inverse retouch at bulb end. One small bifacially thinned flake/ flake fragment with marginal retouch on part of edge — scraper

Appendix 7. Other stone finds

Context	Reference	Number of objects	Stone type	Modification	Object type	Size	Discard	Photo	Comments
1	T1X 100/106	2	vesicular flow lava	none	geological	small pebble	Yes	No	Natural
1	TIX 100/106	5	tabular flow lava (Rano Kau-type)	flaked	chip	small to large pebble	Yes	No	Debitage toolmaking
1	T1X 100/106	1	tabular flow lava (Rano Kau-type)	flaked	flake	small pebble	Yes	No	Debitage toolmaking
1	T1BX2	1	tabular flow lava (Rano Kau-type)	flaked	*toki* (broken)	small cobble	Yes	Yes	Tool fragment
1	T1BX2	1	*poro* fragment	flaked	*toki* (tip)	large pebble	Yes	Yes	Tool fragment
1	T1BX2	1	flow lava	flaked	core	small cobble	Yes	No	Debitage
1	T1BX2	1	*poro* fragment	flaked	flake	small pebble	Yes	No	Debitage
1	T1BX2	3	tabular flow lava (Rano Kau-type)	flaked	flake	small to medium pebble	Yes	No	Debitage
1	T1BX2	1	flow lava	flaked	flake	small pebble	Yes	No	Debitage
1	T1B	1	local grey scoria	none	geological	small cobble	Yes	No	Natural
1	T1B	1	local grey scoria	none	geological	large pebble	Yes	No	Natural
1	T1B	1	*poro* fragment	none	chip	large pebble	Yes	No	Manuport (hammer?)
1	T1B	1	tabular flow lava (Rano Kau-type)	flaked	flake	small pebble	Yes	No	
1	T1B	1	flow lava (with	flaked	*toki* (broken)	small	No	Yes	Tool fragment.

Context	Reference	Number of objects	Stone type	Modification	Object type	Size	Discard	Photo	Comments
			small phenocrysts)			cobble			Photo and draw
3	Small find no 1	1	*poro* fragment	flaked	*toki* (whole)	medium cobble	No	Yes	Tool fragment. Draw
3	Small find no 2	1	beach pebble	battered	hammerstone	medium-large pebble	No	Yes	Hammerstone beach pebble. Photo, draw
3	Small find 20?	1	tabular flow lava (Rano Kau-type)	flaked/ abraded end	*toki* (broken)	small-medium cobble	Yes	No	
3	Small find 26	1	*poro* fragment	flaked	*toki* (broken)	medium cobble	No	Yes	Tool fragment. Photo, draw
3	Small find 27	1	vesicular flow lava/ scoria	none	geological	large cobble	Yes	No	Natural
3	Small find 28	1	tabular flow lava (Rano Kau-type)	flaked/ abraded end	*toki* (broken)	small cobble	No	Yes	Square-bladed tool fragment. Draw, photo
3	T1B 102/102	1	local grey scoria	none	geological	medium-large pebble	Yes	No	Natural
3	T1 102/102	3	flow lava	flaked	flake	small pebble	Yes	No	Debitage
3	T1 100/103	1	tabular flow lava (Rano Kau-type)	flaked	flake	small pebble	Yes	Yes	Debitage
3	T1B 100/103	3	*poro* fragment	flaked	flake	small to medium pebble	Yes	No	Debitage
3	T1B 100/103	2	tabular flow lava (Rano Kau-type)	flaked	flake	small to medium pebble	Yes	No	Debitage
3	T1 103/102	3	tabular flow lava (Rano Kau-type)	flaked	flake	very small to medium pebble	Yes	No	Debitage

Context	Reference	Number of objects	Stone type	Modification	Object type	Size	Discard	Photo	Comments
3	T1B 101/102	1	tabular flow lava (Rano Kau-type)	flaked/ abraded end	*toki* (broken tip)	large pebble	Yes	No	Tool fragment
3	T1B 101/102	1	tabular flow lava (Rano Kau-type)	flaked	chunk	small pebble	Yes	No	Debitage
3	T1B 101/102	2	*poro* fragment	flaked	flake	very small to small pebble	Yes	No	Debitage
3	103/103	3	tabular flow lava (Rano Kau-type)	flaked	flake	very small to small pebble	Yes	No	Debitage
3	103/103	1	tabular flow lava (Rano Kau-type)	flaked/ abraded end	*toki* (tip)	large pebble	No	Yes	Tool fragment. Photo, draw
3	101/105	2	tabular flow lava (Rano Kau-type)	flaked	flake	small pebble	Yes	No	Debitage
3	T1B	10	tabular flow lava (Rano Kau-type)	flaked	flake	small pebble (nine of which are small to middling)	Yes	No	Debitage
3	T1B	1	*poro* fragment	flaked	flake	very small pebble	Yes	No	Debitage
3	T1B	5	flow lava	flaked	flake	Very small to small-medium pebble	Yes	No	Debitage
3	T1B	1	tabular flow lava (Rano Kau-type)	flaked	flake or *toki* (broken|)	large pebble	Yes	No	Debitage
3	T1B	1	tabular flow	flaked/	*toki* (pointed	very large	Yes	No	Tool fragment

Context	Reference	Number of objects	Stone type	Modification	Object type	Size	Discard	Photo	Comments
			lava (Rano Kau-type)	abraded end	tip, broken)	pebble			
3	T1B	1	tabular flow lava (Rano Kau-type)	flaked/ abraded side	*toki* (broken)	large pebble	Yes	No	Tool fragment
3	T1B	2	flow lava (Viringa O Tuki type)	flaked	flake	medium to large pebble	Yes	No	Debitage
3	T1B	1	flow lava	burnt?	manuport	large pebble	Yes	No	Reddened surface
3	T1B	1	flow lava with mica phenocrysts and occasional vesicles	flaked	*toki* (broken)	medium cobble	Yes	No	Tool fragment
3	T1A 103/103	1	flow lava (Viringa O Tuki type)	flaked	*toki* (broken)	small cobble	No	Yes	Tool fragment. Photo, draw
3	T1A	2	tabular flow lava (Rano Kau-type)	flaked	flake	small and medium pebble	Yes	No	Debitage
4	101/104 0-0.5	1	tabular flow lava (Rano Kau-type)	none	manuport	large pebble	Yes	No	Debitage?
4	101/104 0-0.5	2	tabular flow lava (Rano Kau-type)	flaked	flake	very small pebble	Yes	No	Debitage?
4	100/104 0.26 down	1	flow lava	burnt and fire-cracked	manuport	large pebble	Yes	No	Burnt stone
8	SF38	1	tabular flow lava (Rano Kau-type)	flaked/ abraded end and side	*toki* (broken)	small cobble	No	Yes	Tool fragment with wide blade. Photo, draw
8	SF39	1	flow lava?	none	?	medium	Yes	No	

Context	Reference	Number of objects	Stone type	Modification	Object type	Size	Discard	Photo	Comments
						pebble			
8	103/103	3	tabular flow lava (Rano Kau-type)	flaked	flake	small pebble	Yes	No	Debitage
8	102/103	1	flow lava	flaked	flake	very small pebble	Yes	No	Debitage
9	SF4	1	tabular flow lava (Rano Kau-type)	flaked	flake	small pebble	Yes	No	Debitage
10	SF7	1	tabular flow lava (Rano Kau-type)	flaked	flake	small pebble	Yes	No	Debitage
10	SF8	1	tabular flow lava (Rano Kau-type)	flaked/ abraded	flake from *toki*	small pebble	Yes	No	Tool fragment
10	SF9	1	tabular flow lava (Rano Kau-type)	flaked/ abraded end	*toki* (tip)	very large pebble	No	Yes	Tool fragment. Photo, draw
10	SF5	1	tabular flow lava (Rano Kau-type)	flaked	flake	small pebble	Yes	No	Debitage
10	SF10	1	flow lava	flaked	flake	small pebble	Yes	No	Debitage
10	SF11	1	tabular flow lava (Rano Kau-type)	flaked	flake	very small pebble	Yes	No	Debitage
10	SF12	1	flow lava	none	geological	small pebble	Yes	No	Natural
10	SF13	1	tabular flow lava (Rano Kau-type)	flaked	chunk	large pebble	Yes	No	Debitage
10	SF14	1	flow lava with phenocrysts and occasional	flaked/ abraded end	*toki* (tip, broken)	medium-large pebble	Yes	No	Tool fragment

Context	Reference	Number of objects	Stone type	Modification	Object type	Size	Discard	Photo	Comments
			flat vesicles (local)						
10	SF17	1	tabular flow lava (Rano Kau-type)	flaked/ abraded end	slab tool	medium cobble	No	Yes	Chopper. Draw
10	SF19	1	tabular flow lava (Rano Kau-type)	flaked/ abraded end	*toki* (tip broken)	small cobble	No	Yes	Tool fragment. Photo, draw
10	SF30	1	flow lava	flaked	*toki* (tip broken)	medium cobble	Yes	Yes	Tool fragment
10	SF31	1	scoria	none	geological	small pebble	Yes	No	Natural
10	SF35	1	flow lava (green)	flaked/ abraded end	*toki* (tip) (broken)	small cobble	Yes	No	Tool fragment
10	T1B 103/104	3	tabular flow lava (Rano Kau-type)	flaked	flake	very small to small pebble	Yes	No	Debitage
10	T1B 102/103	1	local grey scoria	none	geological	large pebble	Yes	No	Natural
10	T1B 102/103	1	tabular flow lava (Rano Kau-type)	flaked	flake	small pebble	Yes	No	Debitage
10	T1B 102/103	1	flow lava (Viringa O Tuki type)	flaked	flake	small pebble	Yes	No	Debitage
10	T1B 102/103	1	vesicular flow lava	(?) flaked	?flake	large pebble	Yes	No	Debitage
10	T1 100/104	4	tabular flow lava (Rano Kau-type)	flaked	flake	small pebble	Yes	No	Debitage
10	T1 102/105 spit 3	1	flow lava (Rua Toki Toki type)	flaked	flake	small pebble	Yes	No	Debitage
10	T1	2	tabular flow	flaked	flake	small	Yes	No	Debitage

Context	Reference	Number of objects	Stone type	Modification	Object type	Size	Discard	Photo	Comments
	103/105		lava (Rano Kau-type)			pebble			
10	T1B 100/102	1	flow lava (black)	flaked	flake	small pebble	Yes	No	Debitage
10	T1B 100/102	5	tabular flow lava (Rano Kau-type)	flaked	flake	small to medium pebble	Yes	No	Debitage
10	T1PX 100/106	2	tabular flow lava (Rano Kau-type)	flaked/ abraded	*toki* chips	small pebble	Yes	No	Sieved
10	T1PX 100/106	32	tabular flow lava (Rano Kau-type)	flaked	flake	very small to small pebble	Yes	No	Debitage
10	T1PX 100/106	2	flow lava	flaked	flake	very small pebble	Yes	No	Debitage
10	T1PX 100/106	1	flow lava (Rua Toki Toki type)	flaked/ abraded	*toki* chip	small pebble	Yes	No	Debitage
10	T1PX 100/106	1	flow lava	flaked/ abraded	*toki* chip	small pebble	Yes	No	Debitage
10	T1 100/104	4	tabular flow lava (Rano Kau-type)	flaked	flake	small pebble	Yes	No	Debitage
10	T1 103/105	1	tabular flow lava (Rano Kau-type)	flaked	flake	small pebble	Yes	No	Debitage
10	T1B 101/103	1	flow lava (Viringa O Tuki type)	flaked	flake	small pebble	Yes	No	Debitage
10	T1B 101/103	9	tabular flow lava (Rano Kau-type)	flaked	flake	very small pebble	Yes	No	Debitage
10	T1B 101/103	1	beach pebble	none	manuport (broken)	large pebble	Yes	No	
10	T1B	9	tabular flow	flaked	flake	very small	Yes	No	Debitage

Context	Reference	Number of objects	Stone type	Modification	Object type	Size	Discard	Photo	Comments
	100/104		lava (Rano Kau-type)			to medium pebble			
10	102/104	1	flow lava/ red scoria*	none	unknown	medium pebble	Yes	No	Debitage
10	102/104	1	flow lava (Rua Toki Toki type)	flaked	flake	small pebble	Yes	No	Debitage
10	102/104	10	tabular flow lava (Rano Kau-type)	flaked	flakes & 1 chip	very small pebble to large pebble	Yes	No	Debitage
10	102/104	1	flow lava	flaked	flake	large pebble	Yes	No	Debitage
10	101/104 spit 2	4	tabular flow lava (Rano Kau-type)	flaked	flake	very small to medium pebble	Yes	No	Debitage
10	101/105	4	tabular flow lava (Rano Kau-type)	flaked	flake	very small pebble	Yes	No	Debitage
10	101/105	1	flow lava	flaked	flake	very small pebble	Yes	No	Debitage
10	101/105	1	flow lava	none	geological	medium pebble	Yes	No	Natural
10	101/104	5	tabular flow lava (Rano Kau-type)	flaked	flake	Very small to medium pebble	Yes	No	Debitage
10	T1 103/103	4	tabular flow lava (Rano Kau-type)	flaked	flake	very small to small pebble	Yes	No	Debitage
10	T1 103/103	1	tabular flow lava (Rano Kau-type)	flaked	flake	large pebble	Yes	No	Debitage
10	T1 103/103	1	*poro* fragment	Bruise	*poro* fragment	small cobble	Yes	No	Debitage
10	102/104	1	tabular flow	flaked	flake	small-	Yes	No	Debitage

Context	Reference	Number of objects	Stone type	Modification	Object type	Size	Discard	Photo	Comments
			lava (Rano Kau-type)			medium pebble			
10	T1 103/102	1	flow lava (Viringa O Tuki type)	flaked/ abraded	possible *toki* fragment	medium pebble	Yes	No	
10	T1 103/102	2	tabular flow lava (Rano Kau-type)	flaked	flake	very small and small-medium pebble	Yes	No	Debitage
10	100/103	1	tabular flow lava (Rano Kau-type)	flaked/ abraded	flake *toki* fragment?	small pebble	Yes	No	Debitage
10	100/103	1	flow lava (black)	flaked	flake	small-medium pebble	Yes	No	Debitage
10	101/104 spit 1	1	flow lava	flaked	flake	very small pebble	Yes	No	Debitage
10	101/102	3	tabular flow lava (Rano Kau-type)	flaked	flake	small to medium pebble	Yes	No	Debitage
10	101/102	1	red scoria/ vesicular flow lava	?	geological?	small cobble	Yes	No	Debitage?
10	T1B 100/105	5	tabular flow lava (Rano Kau-type)	flaked	flake	small to large pebble	Yes	No	Debitage
10	T1B 101/103	1	tabular flow lava (Rano Kau-type)	flaked	flake	small pebble	Yes	No	Debitage
10	T1 102/101	4	tabular flow lava (Rano Kau-type)	flaked	flake	very small to small pebble	Yes	No	Debitage
12	SF24	1	tabular flow lava (Rano Kau-	flaked/ abraded side	*toki* (broken)	small cobble	No	Yes	Tool fragment. Photo, draw

Context	Reference	Number of objects	Stone type	Modification	Object type	Size	Discard	Photo	Comments
			type)						
12	101/104	1	tabular flow lava (Rano Kau-type)	flaked	flake	medium pebble	Yes	No	Debitage
12	T1B 102/104	1	tabular flow lava (Rano Kau-type)	flaked	flake	very small pebble	Yes	No	Debitage
12	T1B 102/104	1	flow lava	flaked	flake	very small pebble	Yes	No	Debitage
12	T1B 100/104	1	tabular flow lava (Rano Kau-type)	flaked	flake	small pebble	Yes	No	Debitage
13	SF21	1	tabular flow lava (Rano Kau-type)	flaked/ abraded side/ burnt	*toki* (broken)	large pebble	Yes	No	Tool fragment. Red fire spall
13	1027/104	1	flow lava	flaked	flake	very small pebble	Yes	No	Debitage
13	SF24	1	black scoria	none	geological	small pebble	Yes	No	Natural
13	100/103	3	flow lava (Rua Toki Toki type)	flaked	flake	small pebble	Yes	No	Debitage
13	100/103	9	tabular flow lava (Rano Kau-type)	flaked	flake	very small pebble	Yes	No	Debitage
14	SF25	1	flow lava (Rua Toki Toki type)	toki	*toki* (broken) with deep weathering rind	medium cobble	Yes	No	Tool fragment
14	T1B 103/103	2	tabular flow lava (Rano Kau-type)	flaked	flake/chunk	small pebble and medium pebble	Yes	No	Debitage
15	SF41	1	flow lava (Rua Toki Toki-type)	flaked	*toki* (broken)	small-medium	Yes	No	Tool fragment

Context	Reference	Number of objects	Stone type	Modification	Object type	Size	Discard	Photo	Comments
						cobble			
15	100/106	4	tabular flow lava (Rano Kau-type)	flaked	flake	very small to small-medium pebble	Yes	No	Debitage
16	T1B	1	tabular flow lava (Rano Kau-type)	flaked	flake	very small pebble	Yes	No	Debitage
19	SF42	1	tabular flow lava (Rano Kau-type)	flaked/ abraded end	*toki* (broken)	medium cobble	No	Yes	Tool fragment. Draw
19	SF44	1	tabular flow lava (Rano Kau-type)	flaked/ abraded	*toki* fragment	medium pebble	Yes	No	Tool fragment
19	102/104	1	tabular flow lava (Rano Kau-type)	flaked	flake	very small pebble	Yes	No	Debitage
21	101/104	3	tabular flow lava (Rano Kau-type)	flaked	flake	very small to medium pebble	Yes	No	Debitage
23	SF45	1	local grey scoria	none	geological	large pebble	Yes	No	Natural
25?	SF47	1	beach pebble	burnt?	manuport	large pebble	Yes	No	
23	102/105	11	tabular flow lava (Rano Kau-type)?	flaked	flake	very small to medium pebble	Yes	No	Stone type not identified with confidence
23	102/104	2	tabular flow lava (Rano Kau-type)	flaked	flake	small-medium pebble	Yes	No	Debitage
23	102/104	1	flow lava (black)	flaked	flake	small pebble	Yes	No	Debitage
23	102/105	3	tabular flow lava (Rano Kau-	flaked	flake	very small to medium	Yes	No	Debitage

Context	Reference	Number of objects	Stone type	Modification	Object type	Size	Discard	Photo	Comments
			type)			pebble			
23	101/105	1	flow lava	flaked/ abraded	*toki* flake	very small pebble	Yes	No	Core tool fragment
23	101/100	1	flow lava	flaked	flake	medium-large pebble	Yes	No	debitage

27 PP09
Location of sections
Drawing 0
1:20
Drawn by: MST

drawing 9

drawings 12 & 13

E2

100/106

drawing 10 (approx)

104/106

drawing 15

Trench 1b

100/104

104/104

106/104

E1

drawing 4

E3

Trench 1a

100/102

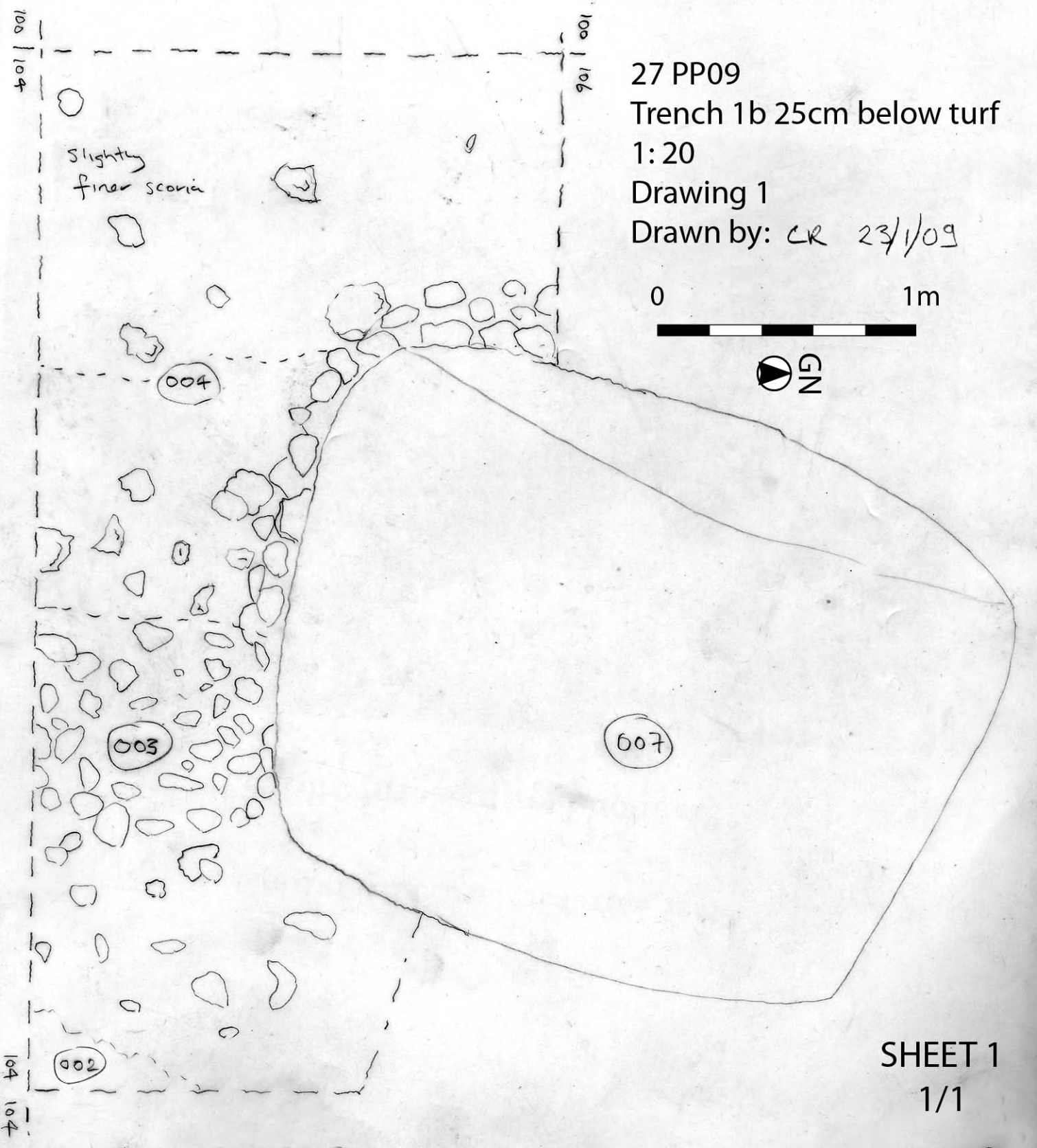
104/102

drawing 8

0 1m GN

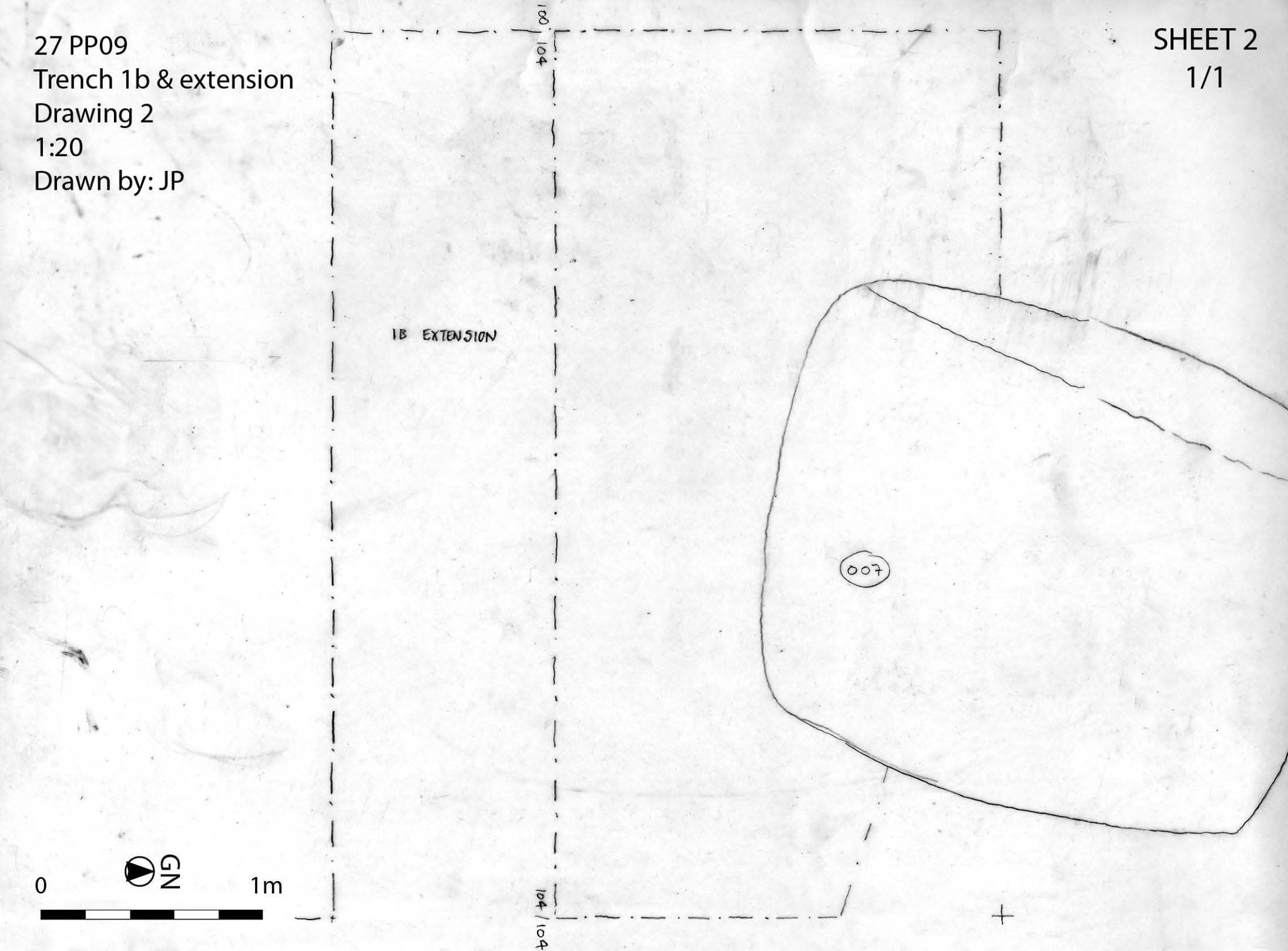
drawing 14

106/100

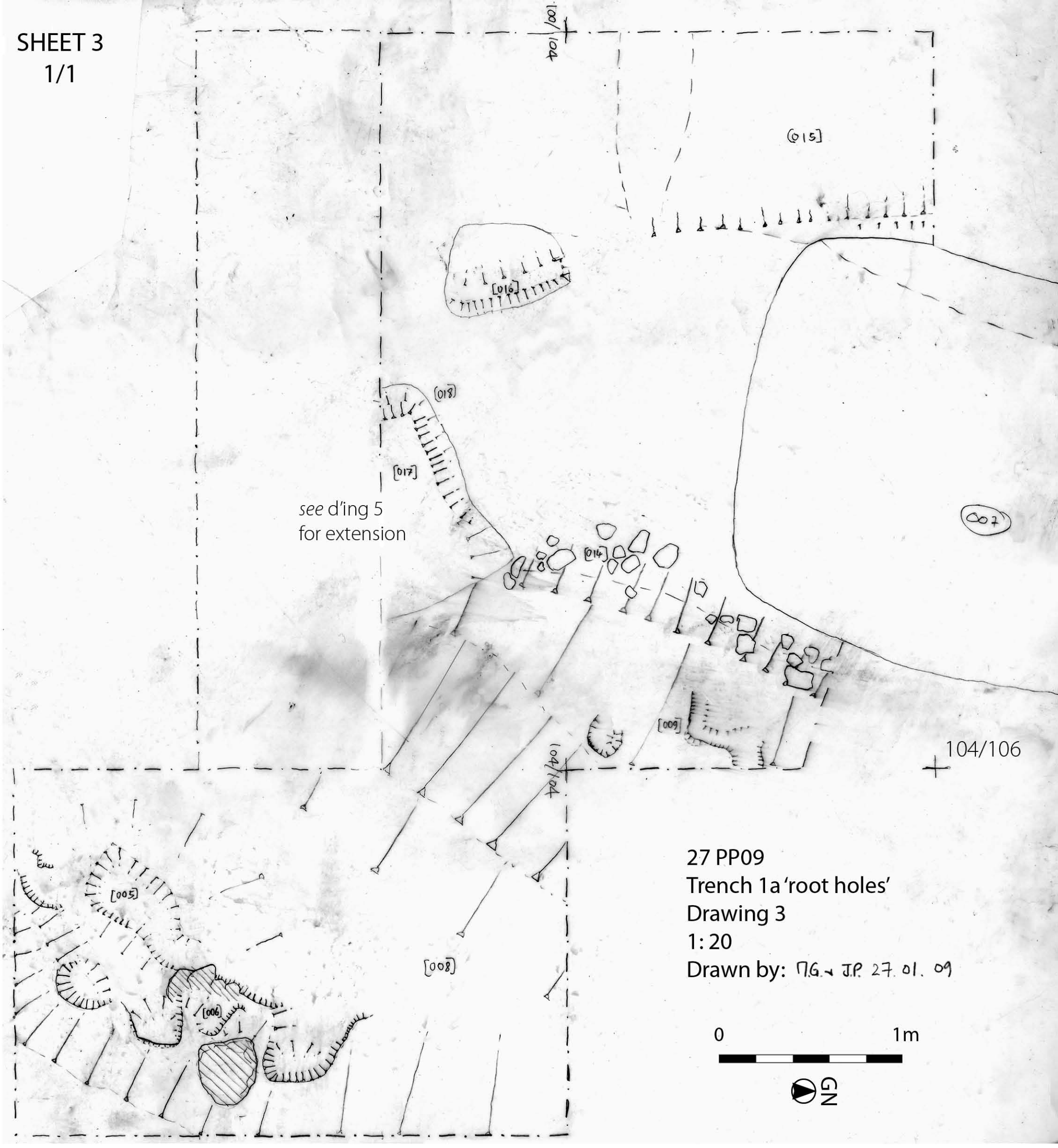

27 PP09
Trench 1b 25cm below turf
1: 20
Drawing 1
Drawn by: CR 23/1/09
0
1m
GN
slightly finer scoria
004
003
007
002
100
104
101
106
SHEET 1
1/1

27 PP09
Trench 1b & extension
Drawing 2
1:20
Drawn by: JP

SHEET 2
1/1



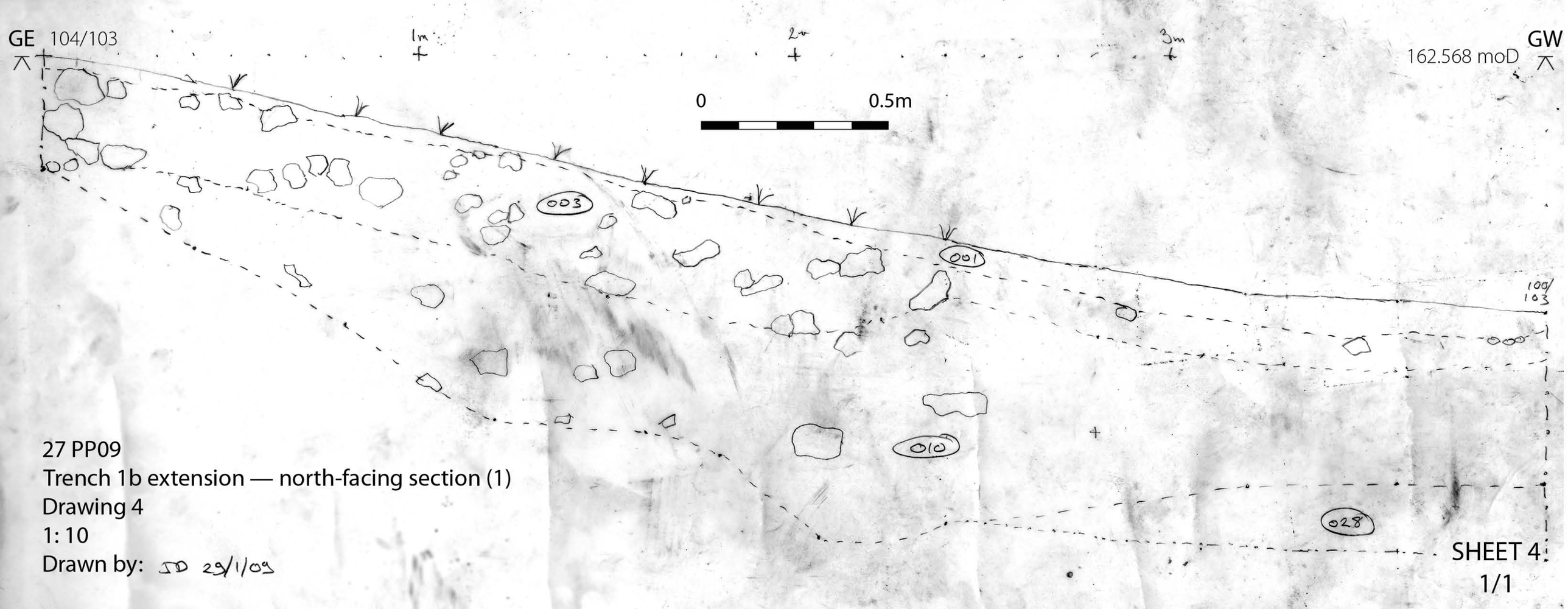
SHEET 3
1/1



27 PP09
Trench 1a 'root holes'
Drawing 3
1: 20
Drawn by: M.G. & J.P. 27.01.09

0 1m

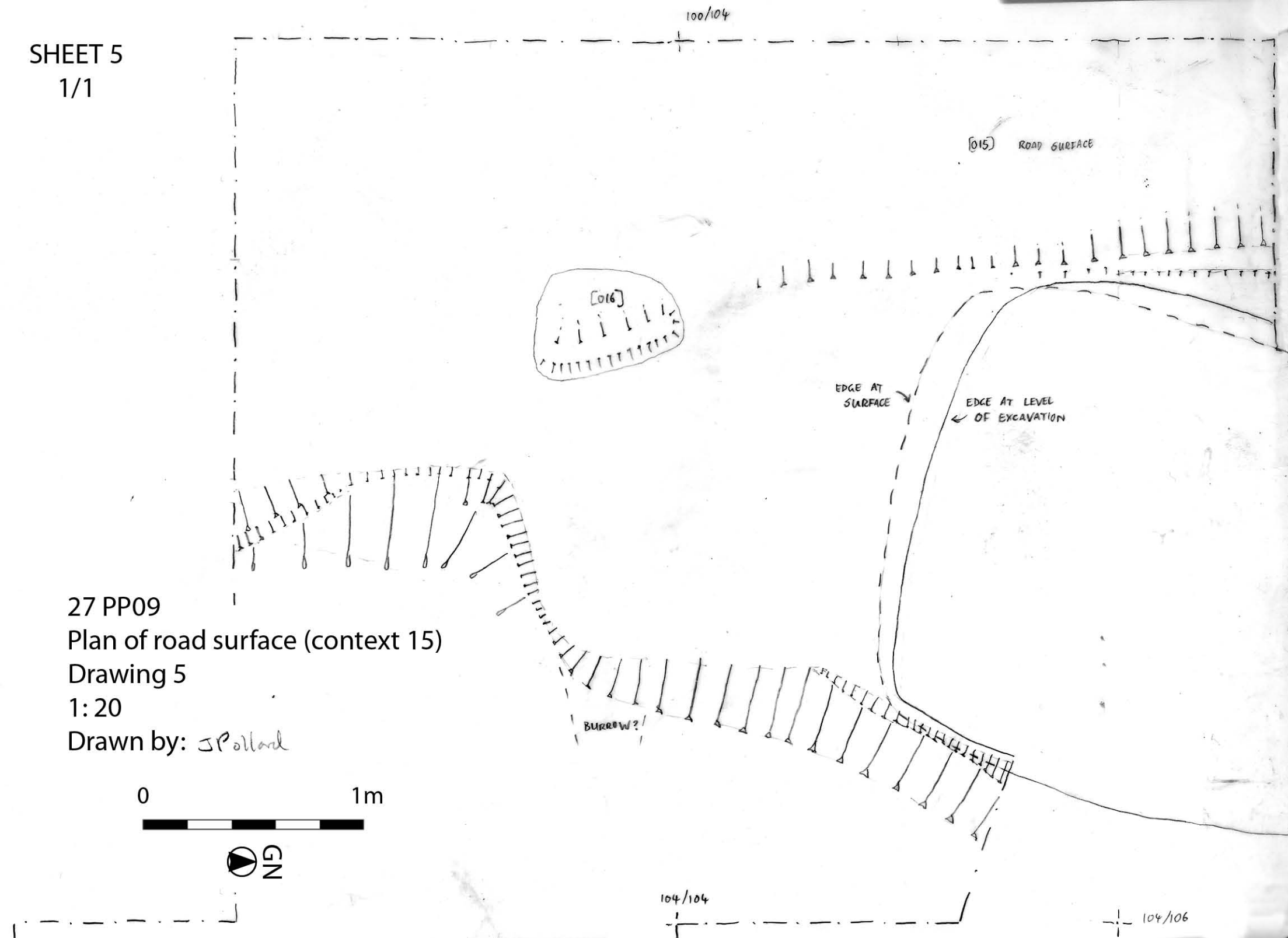
GN



27 PP09
Trench 1b extension — north-facing section (1)
Drawing 4
1: 10
Drawn by: SD 29/1/09

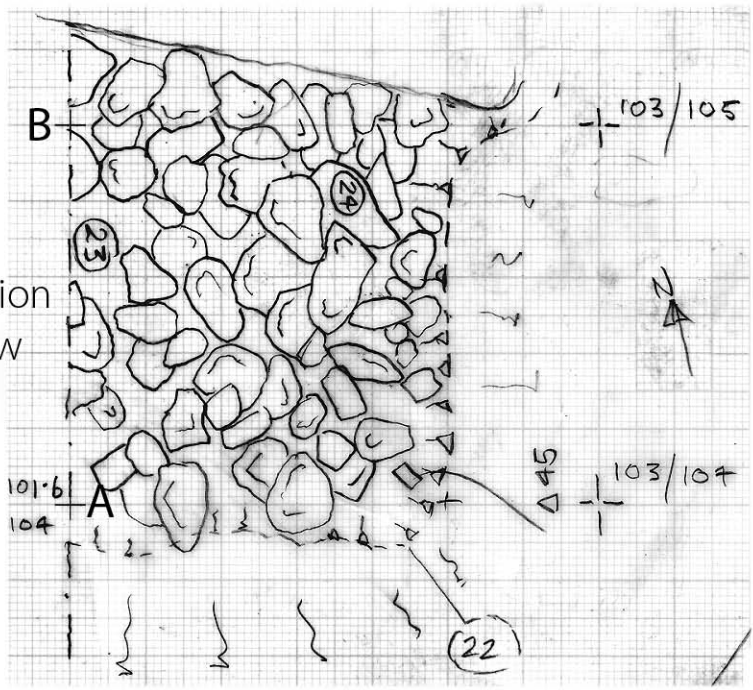
SHEET 4: 1/1

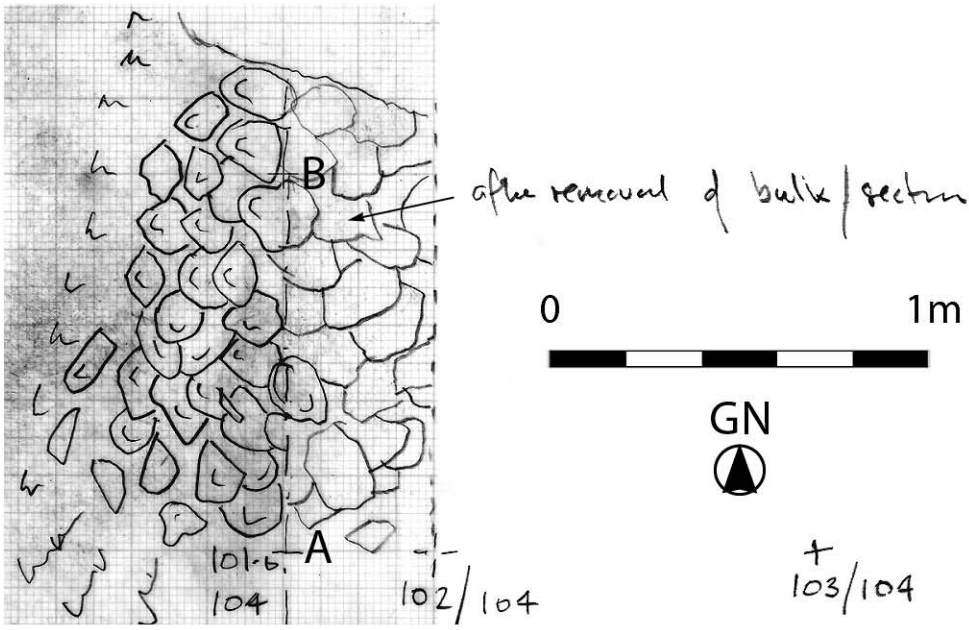
SHEET 5
1/1



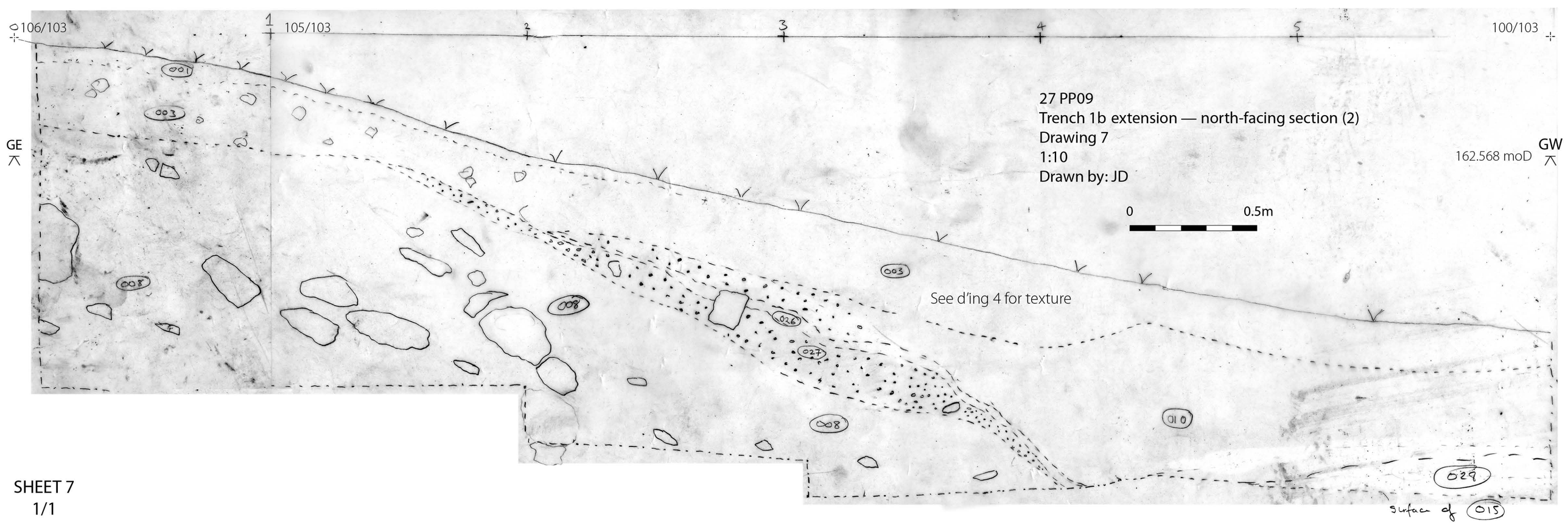
27 PP09
Plan of road surface (context 15)
Drawing 5
1: 20
Drawn by: JPollard

SHEET 6
1/1





27 PP09
Stony fill (context 024) of ramp at foot of pukau (contexts 020 & 022)
Drawing 6
1: 20
Drawn by: CR 4/2/09


0
106/103
1
105/103
2
3
4
5
100/103
GE
GW
162.568 moD
001
003
008
008
003
026
027
008
010
029
See d'ing 4 for texture
27 PP09
Trench 1b extension — north-facing section (2)
Drawing 7
1:10
Drawn by: JD
0
0.5m
surface of 015

SHEET 7
1/1

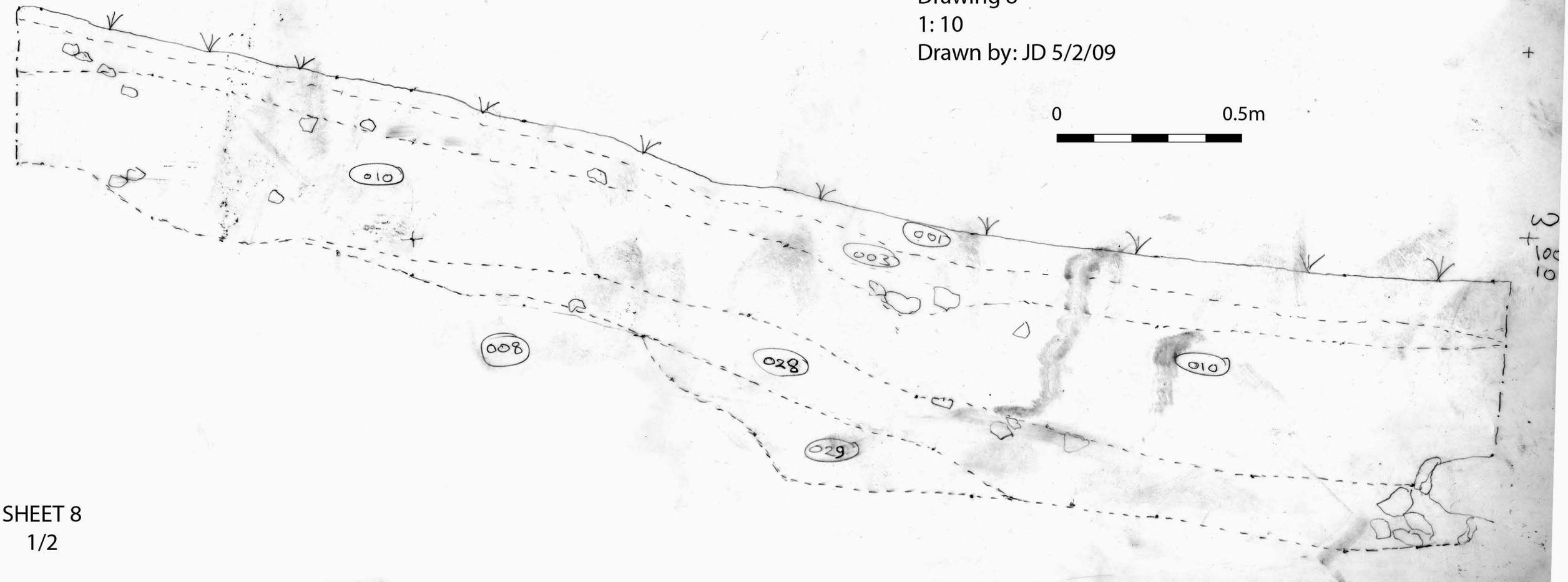
GE 104/102

3m 2m 1m

GW

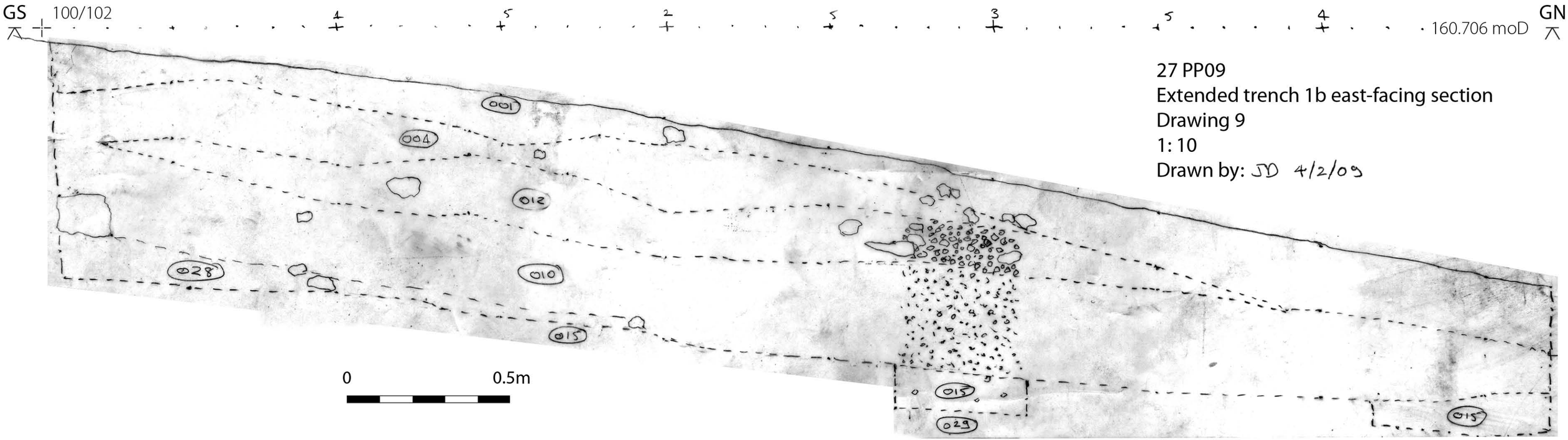
27 PP09
Trench 1b extension — final north-facing section
Drawing 8
1: 10
Drawn by: JD 5/2/09

0 0.5m

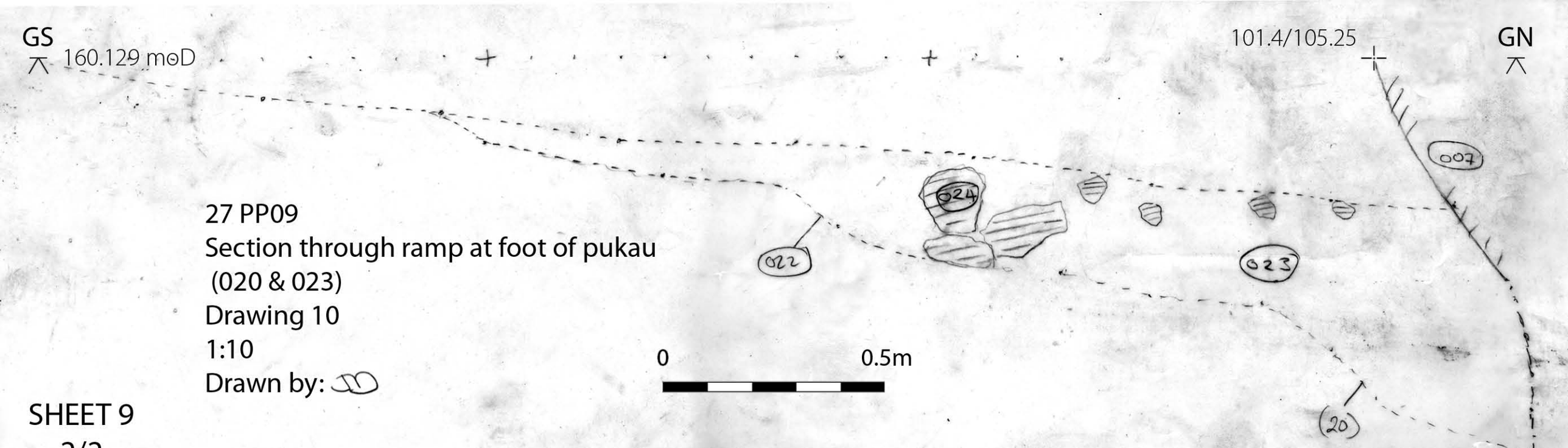


SHEET 8
1/2

SHEET 9
1/2

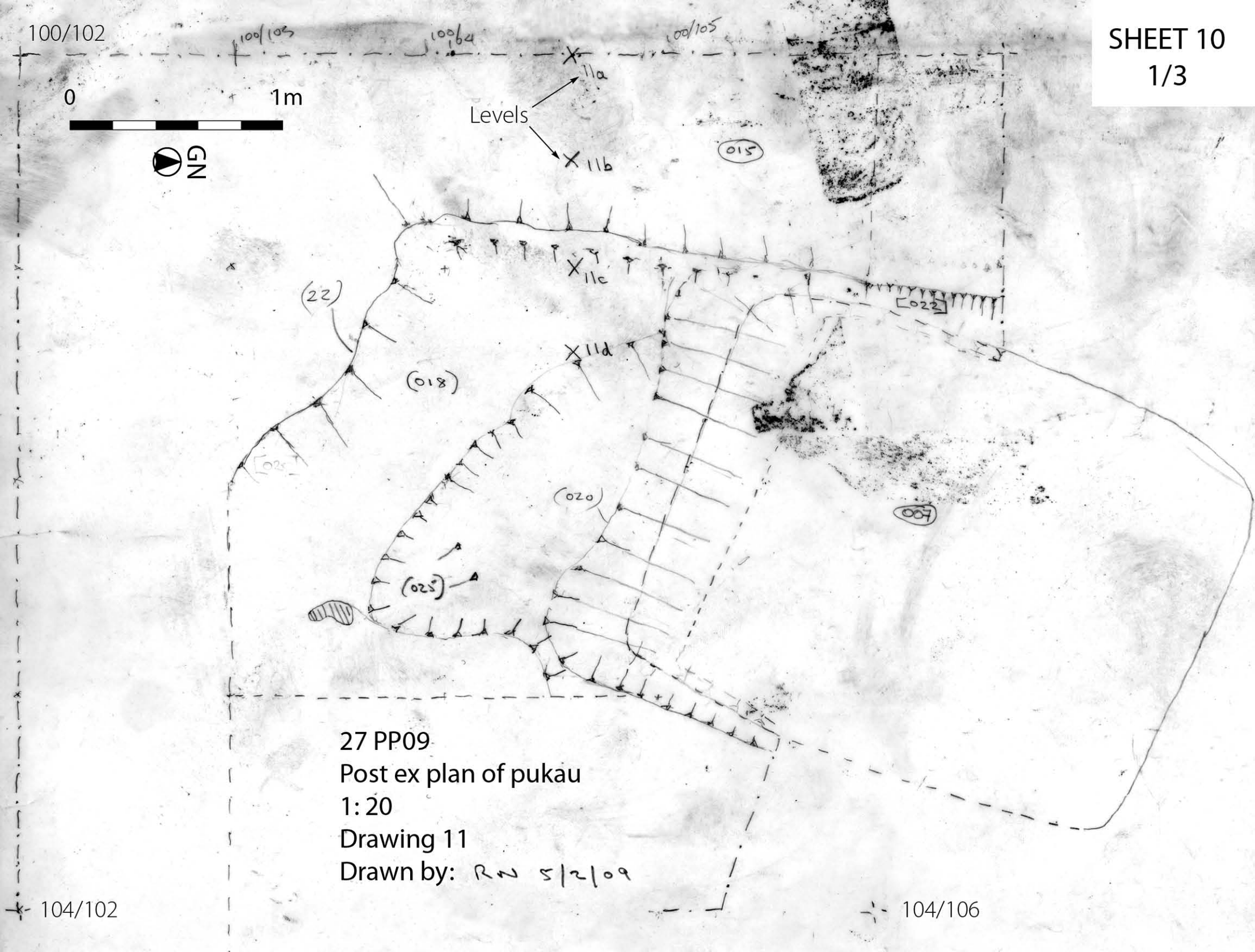


27 PP09
Extended trench 1b east-facing section
Drawing 9
1: 10
Drawn by: JD 4/2/09

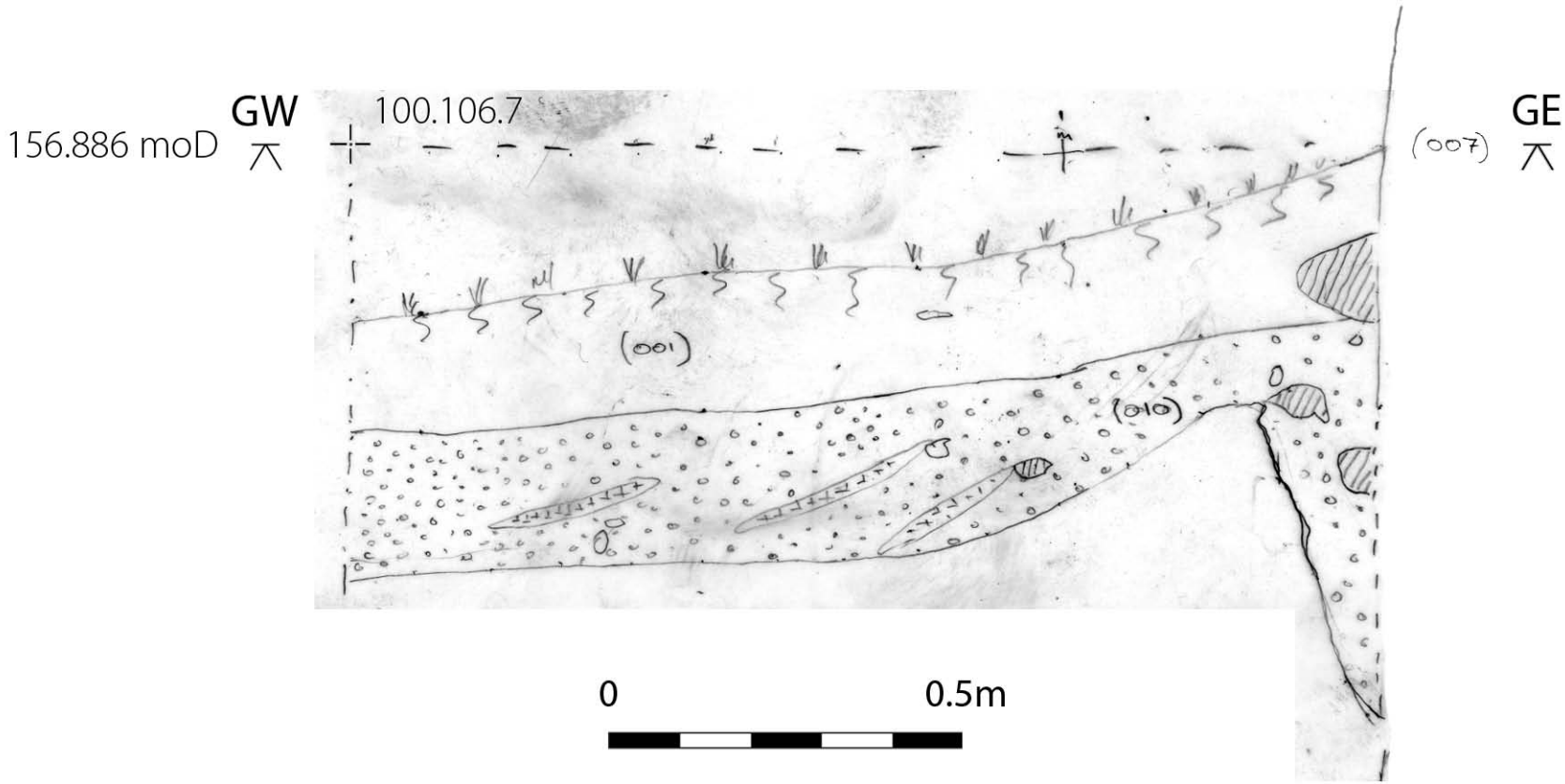


27 PP09
Section through ramp at foot of pukau
(020 & 023)
Drawing 10
1:10
Drawn by:

SHEET 9
2/2

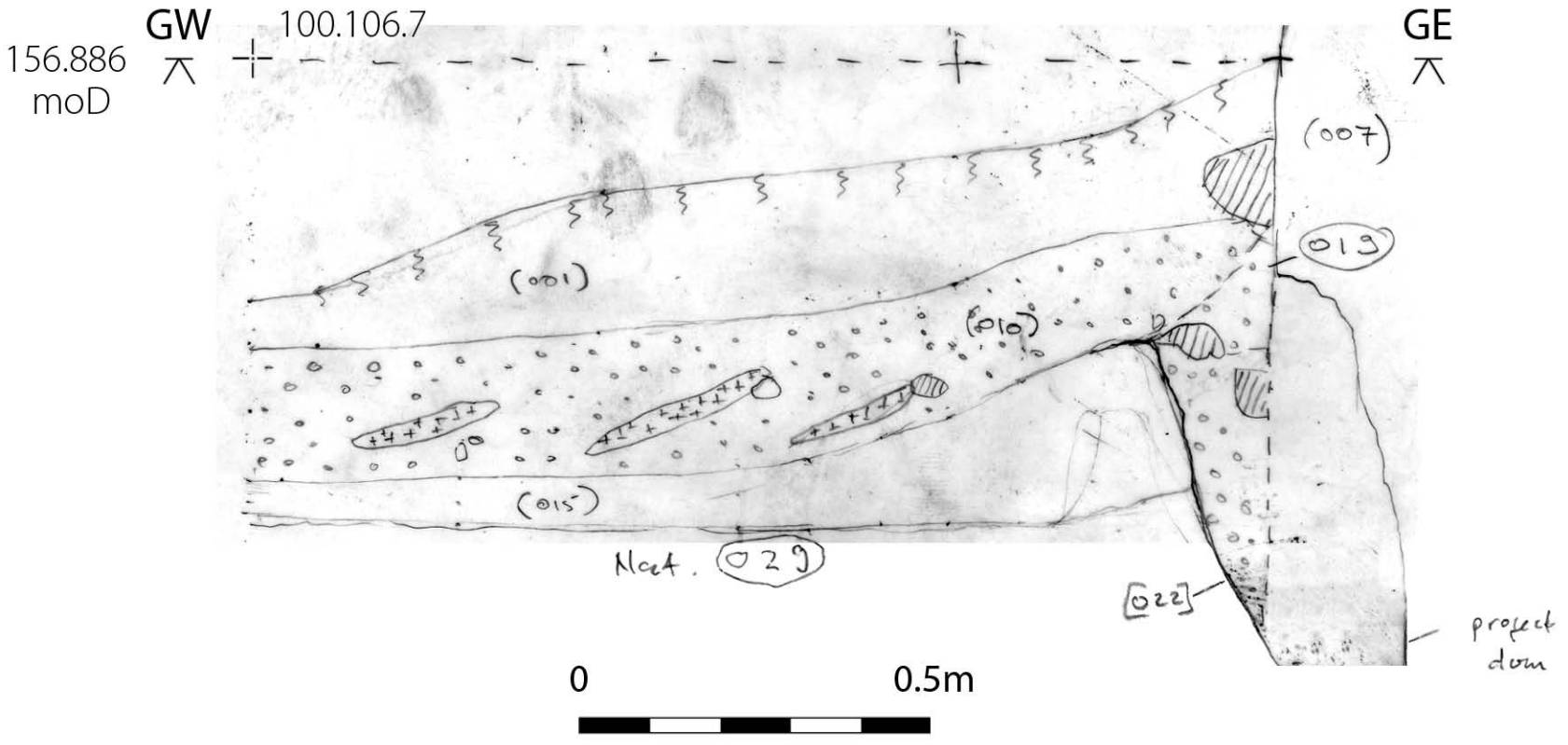

100/102
100/103
100/104
100/105
SHEET 10
1/3
0
1m
GN
Levels
11a
11b
11c
11d
(015)
(22)
(018)
[022]
[023]
(020)
(007)
(025)
27 PP09
Post ex plan of pukau
1: 20
Drawing 11
Drawn by: RN 5/2/09
104/102
104/106

SHEET 10
2/3



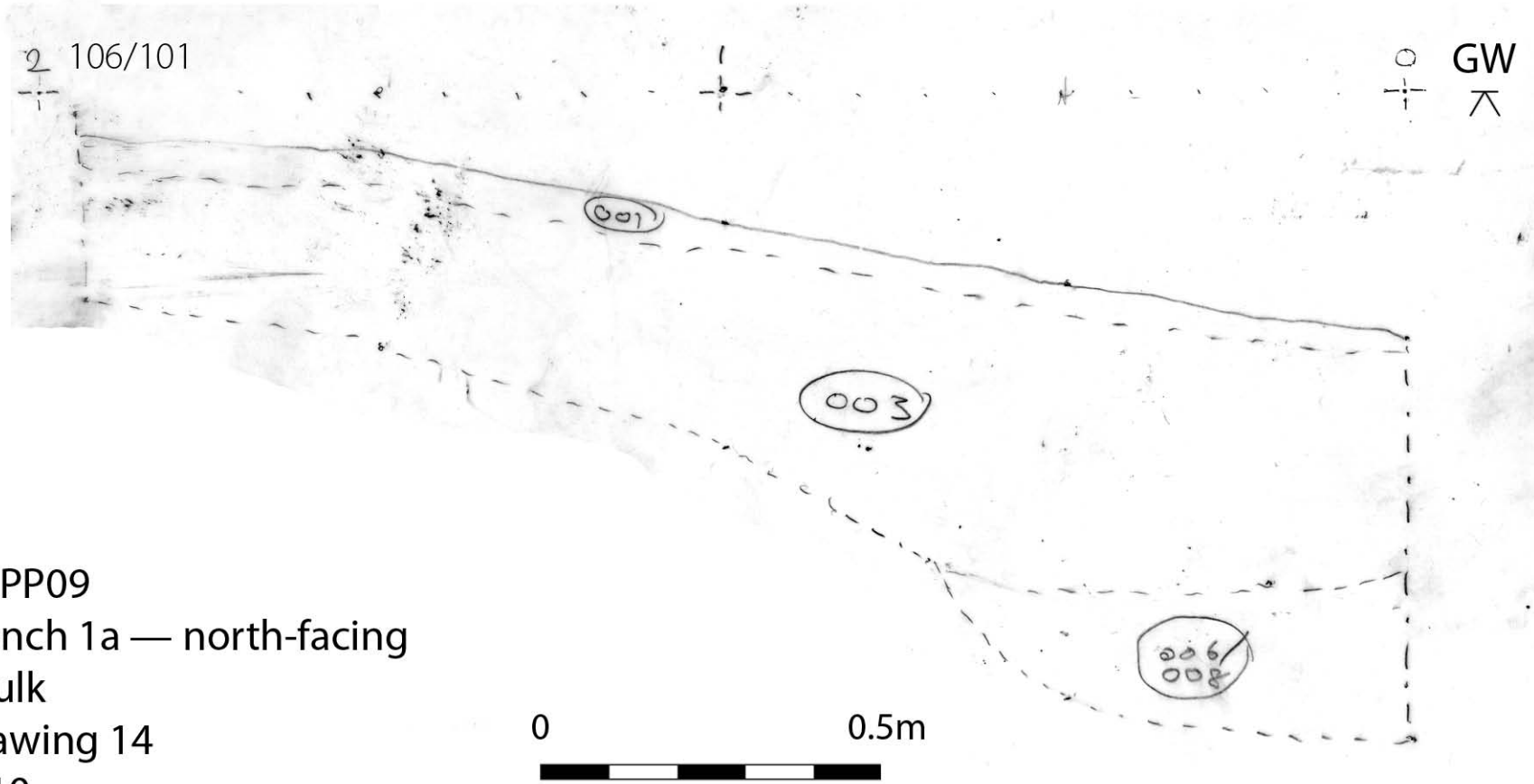
27 PP09
South-facing section through sediments overlying roadway
Drawing 12
1: 10
Drawn by: RN 5/2/09

SHEET 10
3/3



27 PP09
South-facing section through roadway (context 15)
Drawing 13
1: 10
Drawn by: RN 5/2/09

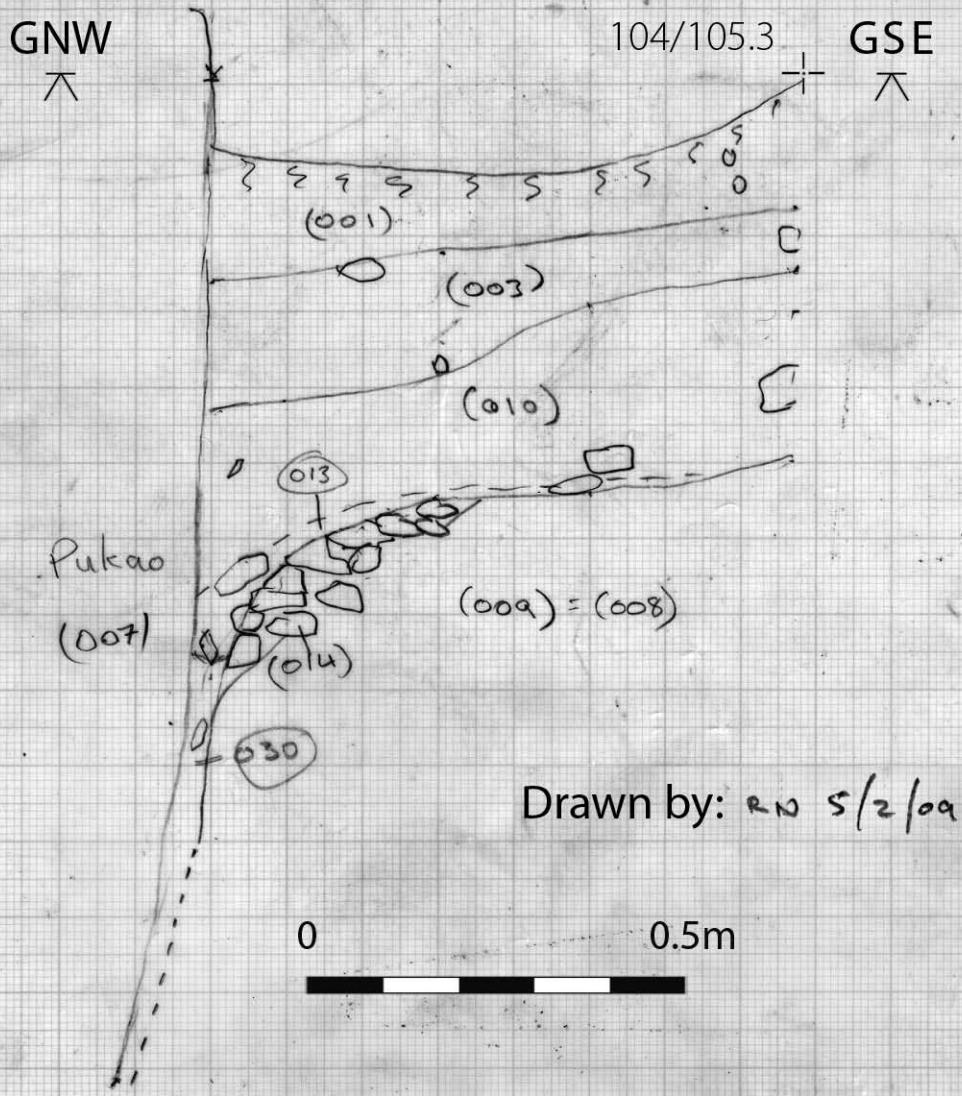
SHEET 8
2/2



27 PP09
Trench 1a — north-facing baulk
Drawing 14
1: 10
Drawn by: J.D.

SHEET 11
1/1

27 PP09
Section — NE baulk
Drawing 15
1: 10



Drawn by: RN 5/2/09

SHEET 12
1/1

27 PP09
Pre-ex plan of contexts 22 & 20
Drawing 16
1 :20
Drawn by: CR

0 1m GN

SHEET 13
1/1

Tr 1a

007

Tr 1b

27 PP09
Drawing 17
1: 20
Drawn by: CR

0 1m

100/
104

CR

Site N